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ABSTRACT

More than 60 studies on prison education were reviewed to determine the following: relationship between prison education and offender behavior; effects of prison population control strategies on prison education programs; and effects of academic and vocational program participation on inmate misconduct and reincarceration. Among the main findings were the following: (1) inmates exposed to education programs have lower recidivism rates than do nonparticipants; (2) most vocational programs in prison reported lower recidivism rates, lower parole revocation rates, better postrelease employment patterns, and better institutional disciplinary records for participants than for nonparticipants; and (3) factors associated with higher program success rates include keeping the program separate from the rest of prison routine, providing follow-up after release, identifying and attracting a target population, and providing marketable vocational skills. An examination of the prison population control strategies and correctional education program provided by Texas' Windham School System established the following: recent prison population control strategies have virtually closed the window of opportunity for inmates in educational and vocational programs; the system's academic programming had the greatest effects on inmates at the lower grade levels; and the system's vocational programs have modest reincarceration effects. (Contains 108 references, 27 additional publications, not discussed in Chapter 1, and 14 tables.) (MN)

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Education for Public Service

PRISON EDUCATION RESEARCH PROJECT
FINAL REPORT

September 1994

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PRISON EDUCATION RESEARCH PROJECT
FINAL REPORT

September 1994

The Prison Education Research Project is a cooperative research program of the Criminal Justice Center, Sam Houston State University, and the Windham School System of the Texas Department of Criminal Justice–Institutional Division. The purpose of the project is to assess the impact of prison-based education programs on offender behavior.

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Preface

In December 1992, the Comptroller's Office issued a report on the performance of the Windham School System (WSS). One recommendation was that Windham undertake an evaluation of the relationship between prison education programs and recidivism. The Windham School System approached the Criminal Justice Center at Sam Houston State University to conduct an independent evaluation of WSS programs. SHSU researchers undertook three studies; this report presents findings from these research efforts.

The first study surveyed the relevant research literature on prison education programs. The second examined the effects of prison population control strategies on prison education programs and the window of opportunity. The third study examined the impact of WSS education programs on inmate misconduct and recidivism.

Summary of Chapter 1
Prison Education and Offender Behavior: A Review of the Scientific Literature

- This report surveyed over 60 studies on prison education. The most important findings were as follows:

- The most common finding among 19 studies of precollege education programs in prison is that inmates exposed to education programs have lower recidivism rates than nonparticipants.

- Ten studies of prison college programs and postrelease recidivism showed a strong relationship between college education and reduced recidivism, while four studies showed no relationship.

- Most of the recent studies of vocational programs in prison report lower recidivism rates, lower parole revocation rates, better postrelease employment patterns, and better institutional disciplinary records for participants compared to nonparticipants.

The review of the literature suggests further that:

- The greater the exposure to educational programs, the greater the program's impact.

- Programs that are separate from the rest of the prison routine are more likely to succeed.

- Programs that provide follow-up after release are more likely to succeed.

- Programs that identify and attract a target population are more likely to achieve intended objectives.

- Vocational programs that provide marketable skills are more likely to achieve stated objectives.

- Other research has suggested that the most stable predictors of recidivism may be age at first arrest, age upon release, ethnicity, gender, living arrangements, family ties, current income, and history of drug and alcohol abuse. These latter factors are well beyond the control of prison educators. It may be therefore unrealistic to expect prison education to have a substantial effect on recidivism.

Summary of Chapter 2 A Limited Capacity to Treat: Examining the Effects of Prison Population Control Strategies on Prison Education Programs

This report examined the effects of prison population control strategies on prison education programs. The major findings were:

- This report defines the "window of opportunity" as the time necessary for an inmate to achieve a one grade level increase in an academic program or receive vocational certification.

- The rapid downturn in time served, a backlog of inmates in county jails waiting transfer and inadequate classroom space limit inmate exposure to Windham School System programs.

- Findings indicate that the window of opportunity for inmates in educational and vocational programs has been virtually closed. The time it takes to effect a one grade level change or to achieve vocational certification often surpasses the average time served in prison.

- A shrinking window of opportunity would have deleterious effects on Windham School System performance. Fewer inmates would be able to complete programs, achieve grade level changes, receive vocational certification, or earn GEDs. Many inmates would therefore leave the prison system without the benefits of education.

Summary of Chapter 3
The Effects of Academic and Vocational Program Participation on Inmate Misconduct and Reincarceration

This study examined the impact of inmate participation in Windham academic and vocational programming on return to prison and disciplinary infractions while incarcerated.

- Exposure to educational programs is a critical issue in measures of effectiveness in reducing return to prison. For example, inmates with more than 300 hours in Windham academic programs had a 16.6 percent reincarceration rate compared to a 25.0 percent for inmates with less than 100 hours in Windham academic programs.

- Windham academic programming had the greatest effect on inmates at the lower grade levels. Among inmates with less than a fourth grade education level, those with over 200 hours in academic programming had a reincarceration rate of 18.1 percent, compared to 26.6 percent of inmates with no exposure to Windham. The data suggest that recidivism rates can be reduced by about one-third if extensive services target inmates in the lowest educational achievement levels.

- Hours of program participation resulted in lower levels of reincarceration for inmates at all grade levels.

- Participation in vocational programs showed modest reincarceration effects.

Recommendations to the Windham School System and Texas Department of Criminal Justice-Institutional Division

1. Windham School System should work in concert with parole and institutional division staff to identify parole dates of all inmates eligible to participate in educational programs. Priority should be given to inmates who can complete programs and who would benefit the most from WSS Services.

2. The Windham School System should target inmates who may be exposed to at least two hundred hours of academic programming, focusing especially on those inmates with the lowest educational levels.

3. For vocational programming, WSS should target inmates who will be incarcerated long enough to complete a program but with an impending release date that will allow them to make use of their vocational training shortly after certification.

4. The Windham School System, in conjunction with the Institutional Division, should explore the possibility of establishing dedicated units to emphasize academic and vocational programs.

5. The Windham School System should seek to establish continuity of service delivery with literacy programs in the free community.

6. Windham officials should develop programs that reflect changes in time served and should solicit cooperation from Institutional Division officials to assure that eligible inmates are able to complete the programs.

7. The Windham School System should conduct follow-up research to ascertain the relationship between programming, post-prison employment, and patterns of recidivism.

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CHAPTER 1
PRISON EDUCATION AND OFFENDER BEHAVIOR: A REVIEW OF THE SCIENTIFIC LITERATURE

Abstract

This article summarizes and integrates the findings of recent studies that evaluate adult academic and vocational correctional education programs for men. Contrary to the famous Martinson Report (1974), it was concluded was that the recent research shows support for the hypotheses that adult academic and vocational correctional education programs lead to fewer disciplinary violations during incarceration, to reductions in recidivism, to increases in employment opportunities, and to increases in participation in education upon release. This chapter concludes with recommendations for future research.

Introduction

Correctional education programs have existed since the 1800s, but initially the programs focused on religious instruction. It was believed that rehabilitative efforts could be enhanced if the incarcerated offender sought spiritual enlightenment (Linden and Perry 1983). Not until the 1930s did educational programs begin to play a primary role in the rehabilitative process and to receive broad acceptance for their potential effect on offenders. These programs focused primarily on academic and vocational education. In the 1960s, postsecondary programs began to be offered in correctional settings (Linden and Perry 1983). Today correctional education programs are prevalent, but observers have questioned the impact of these programs on inmates, both during incarceration and upon release.

Writing about two decades ago, and after thoroughly reviewing 231 studies of prison programs aimed at rehabilitating inmates, Martinson concluded that

> *[w]ith few and isolated exceptions, the rehabilitative efforts that have been reported so far have had no appreciable effect on recidivism (1974 [1976]:25).*

This finding, which was picked up by the mass media (e.g., "Big Change in Prisons" 1975), was used by critics of prison programs to argue against rehabilitation as the primary justification for incarceration. Soon, however, Martinson's critics pointed out that he was premature in dismissing all forms of intervention. Although few programs can succeed in rehabilitating all inmates, more moderate successes may be possible:

> *Rather than ask, "What works–for offenders as a whole?" we must increasingly ask "Which methods work best for which types of offenders, and under what conditions or in what types of setting?" (Palmer 1976:150).*

Our goal is to identify research that assesses the effects of correctional education on inmates. We focus on the following possible outcomes:

- *Do inmates who participated in educational programs while incarcerated have lower recidivism rates than nonparticipants?*

- *Are participants more likely than nonparticipants to enroll in educational programs upon release from incarceration?*
- *Do participants have better employment records than nonparticipants after release?*
- *Do participants exhibit fewer disciplinary problems than nonparticipants while incarcerated?*

Adult education in prison could lead in two ways to a reduction in criminal behavior, to postrelease enrollment in education, to better postrelease employment history, and to fewer disciplinary problems. First, inmates could become more conscientious as a result of moral development due to exposure to the liberal arts (Gordon and Arbuthnot 1987). The following claim, for instance, concerns inmates' behavior in prison:

> *The prisons will benefit because intellectually challenged minds tend to maintain clean institutional records since the inmate, trained at a higher cognitive level, will acquire the ability to respond to situations intellectually and verbally rather than physically (O'Neil 1990:29).*

Second, and alternatively, inmates may benefit because they have better educational credentials upon release, which lead to more opportunities. Thus they suffer less strain (Merton 1938). These possibilities seem plausible, but must be supported by experience and observation. Although an education may have positive influences on an inmate upon release, extraneous variables also may affect these outcomes. These variables include various social, psychological, and environmental factors.

Criteria for Selection and Evaluation

Let us begin with some preliminary comments about the selection and evaluation of studies. First, evaluating any one prison program without regard for the social environment is bound to be problematic. On an abstract level it is fairly easy to identify single causes of behaviors, or at least to note influences, but reality is often quite complex. The success of a prison program is affected by many factors beyond its own characteristics. A case in point is provided by studying the causes of recidivism:

> *To measure the success of a program against the single variable of the absence of reconviction for a criminal act does not take into account the many other factors influencing an individual both during and after release. There appears to be a general agreement in the literature that factors such as the offender's previous life history, post-release family and other socio-economic connections, access to opportunity systems, physical and mental health, and a variety of other variables contribute substantially to his or her behavior upon release from incarceration . . . . Persons who have experienced correctional training may be favorably affected by the treatment only to have the good effects discounted by the fact that they are returned to the same family, the same neighborhood, and the same detrimental social groupings and influences which contributed to their antisocial behavior in the first place (Enocksson 1981:12).*

Second, determining the impact of any correctional intervention is complicated by the problem of self-selection. Usually it is impossible to assign subjects randomly to an experimental group (inmates participating in the treatment program) and a control group (inmates not included in the program). Therefore self-selection becomes an issue. For example, inmates who volunteer for vocational education may be more highly motivated than those who do not do so (see, for instance, Saylor and Gaes 1987). If these inmates are found to do better after they are released from custody (as shown by lower recidivism rates, for example), it is difficult to determine whether their postrelease success is due to their ambitions or to the success of the program in which they were involved. Unfortunately, many studies do not control for such biases.[1]

Third, research sometimes is conducted with very small samples, although statisticians argue that few meaningful statistical conclusions can be reached with samples of fewer than 30 individuals (e.g., Hamilton 1990). Our review does not include studies based on such small samples.

Fourth, the measurement of consequences and the length of follow-up period are important. For instance, recidivism can be measured by new arrests, new convictions, or new incarcerations. Similarly, former inmates may be followed for three months, six months, one year, or several years. As a general rule, the longer researchers follow subjects, the more confident we are in accepting their findings. Also, the more detail provided, the more accurately we can evaluate the precision of the research.

Fifth, hundreds of studies conducted in the United States and Canada focus on the outcomes of correctional education. Many of these studies were carried out by the correctional units responsible for administering the programs, and thus deal mainly with administrative and organizational aspects of the programs. Such studies may deal with the organizational structure of the educational system, personnel requirements, the number of students enrolled in various programs, or the number of graduates per program. These studies provide overviews of the particular programs, but they are not concerned primarily with *outcomes* of correctional education. Here we review only studies that deal specifically with outcomes.

In most instances we also limit our discussion to studies that report on independent and original research. With very few exceptions, we do not include articles in which the authors argue for or against a particular type of correctional education program without reporting an evaluation of an existing program.[2]

We selected and evaluated studies on the basis of the criteria listed in Table 1. We used these criteria to rate each study we reviewed. The most rigorous studies employed a control group, used some form of control (either matching, random assignment, or statistical controls), and included tests of statistical significance. We awarded studies one point for addressing each of these three issues; consequently the "methodology scores" range from 0 to 3. Tables 2, 3, and 4 display the results of each study and present our rating of their methodological adequacy.

Review of the Literature

The great variety of programs administered in prisons makes evaluation difficult, but we can distinguish between **academic, vocational**, and **social education**. Furthermore, some studies focus on the outcomes of participation in college education; others examine high school or below-high school education. Some studies analyze the outcomes of educational programs for juveniles; others concentrate on programs for adults. We will discuss separately the literature dealing with each of these programs. **Our discussion focuses on academic and vocational education for adults, which is the primary mission of the Windham School System:**

> *Over 75 percent of the inmates in the TDCJ–ID [Texas Department of Criminal Justic–Institutional Division] had less than a high school education. Nearly half (48 percent) of the inmate population performs below the sixth grade level on a standardized achievement test. In addition, the average unemployment rate for offenders in Texas is 47 percent according to a 1989 study compared to a state-wide rate among the general population of 6.2 percent for school year 1989-90. Therefore, the basic program of instruction offered the inmate population emphasizes literacy skills, GED preparation, and vocational training to enhance the probability of an inmate becoming gainfully employed upon release from prison (Windham School System, no date:2).*

For comparison, we also present findings from research on social education programs for adults, but we do not emphasize these findings. Social education programs focus primarily on providing inmates with "coping skills," as opposed to marketable skills or credentials. Also, we do not present research on intervention programs for juveniles because it does not pertain to adult correctional education.

Adult Academic Education

Basic and secondary education. The research findings concerning basic and secondary education are fairly clear. A few researchers found no evidence that adult academic education has any positive effects on recidivism, but **the most common finding, shown in Table 2, is that inmates exposed to education programs have lower recidivism rates than nonparticipants.**

Martinson (1974; also see Lipton, Martinson, and Wilks 1975) claimed to find no evidence of a relationship between adult academic education and lower recidivism rates. A close reading of Martinson's discussion, however, shows that the studies he cited do not support his conclusions. Martinson claimed that six studies analyzed this relationship and that three showed no correlation. Unfortunately, he failed to identify two of these studies.[3] Of the remaining three, he acknowledged that two (Saden 1962; Schnur 1948) *did* show a correlation between adult education and a reduction in recidivism; he dismissed the final study, Glaser (1964), as difficult to interpret.

The great majority of studies focusing on adult basic and secondary education show an inverse relationship between participation and recidivism. Anderson, Anderson, and Schumacker (1988:1-2) found in Illinois that "those who completed a GED/High School or higher, upon release, had a higher employment rate, lower unemployment rate, and

lower criminal activity rate at twelve months than those releasees who had less than a GED" (also see Schumacker, Anderson, and Anderson 1990). Similarly, a study in Florida showed that among inmates released between 1986 and 1988, those who completed an academic program while in prison were much less likely to recidivate than members of the general prison population (Correctional Education School Authority 1990). In earlier studies in Delaware (Zink 1970) and in Ohio (Cochran 1965), participants in correctional education programs fared significantly better on release than did nonparticipants. More recently, studies in Alabama (Cogburn 1988) and in New York (New York State 1989, 1992) produced similar findings.[4]

Along somewhat different lines, Anderson (1981:22) found in Illinois that "parolees who were enrolled in academic course work while at the institution were significantly more likely to take vocational or further academic course work while on parole." Similar findings were discovered in Texas in a prison program titled "Reading to Reduce Recidivism." Nearly 75 percent of the participants in this program continued to participate in the community program after release, as compared with 15 to 20 percent of parolees in other programs. The success of the program was credited to the design of the prison program: it could be followed up easily in the community. With respect to recidivism, preliminary reports suggest that this program *may* be successful (State of Texas 1992).

Since Martinson's publication, however, we find few studies that show no correlation between prison education and recidivism. Johnson, Shearon, and Britton (1974), whose study was not included in Martinson's review, discovered that female inmates who earned the GED while in prison were no less likely to recidivate than inmates who did not participate in prison education. In a study conducted in Canada, Rogers (1980) found no differences in recidivism between inmates who participated in prison adult education and those who did not. Roundtree, Edwards, and Dawson (1982) studied the impact of education on male inmates' self-esteem. Although the authors implied that improvement in mathematical skills increased self-esteem, the results were not statistically significant.[5]

As Table 2 shows, the methodological adequacy of the studies did not systematically influence their outcomes. We reviewed seven recidivism studies that received a 3, our highest rating (the authors received one point each for using a control group, statistical controls, and tests of significance). Three of these studies (Anderson 1981; Johnson et al. 1974; Roundtree et al. 1982) revealed no correlation between education and recidivism; the remaining four (Cochran 1965; Cogburn 1988; New York State 1989, 1992) showed strong correlations.

Only one of the studies that merited a 3 for methodological rigor (Anderson 1981) focused on the correlation between precollege academic correctional education and (1) postrelease employment and (2) postrelease participation in education. Participation in correctional education did not increase the probability of success in postrelease employment, but it did lead to greater participation in education after release. Yet the other studies we found that focused on these two relationships generated consistent findings (i.e., inverse correlations between education and recidivism) and were relatively sound methodologically (each received a rating

of 2). Therefore, we conclude, most empirical research indicates that precollege education leads to more favorable patterns of employ-ment and postrelease education among participants.

At the same time, however, we found no research that focused on the relationship between precollege education and a reduction in disciplinary problems during incarceration.

College education. Like high school education, participation in college correctional programs is likely to produce benefits for inmates and (by implication) for society. Numerous studies have shown a clear and fairly consistent correlation between collegiate studies and recidivism, and between college and variables measuring personal growth. At the same time, some critics have pointed out methodological weaknesses in the research, and caution against overoptimistic interpretations:

> *Studies of the relationship between prison higher education and recidivism give mixed reviews of the impact of prison college programs on recidivism. Some of the studies are flawed by serious methodological problems. Control groups are sometimes not well-matched, sample sizes are often small, and "time at risk" often differs for the subjects in the research. Given a collection of studies of such disparate quality, the question of the efficacy of prison higher education remains (Lockwood 1991:188).*

Most studies report an inverse relationship between college education and recidivism. (See Table 3). Reporting on a study of a prison program of the University of Victoria (British Columbia), Duguid (1981; also see Ayers et al. 1980) reported that only 14 percent of the inmates who participated in the program returned to prison within three years; the rate for nonparticipants was 51 percent. Furthermore, the former students "showed impressive sophistication in their thinking on law and politics, criminal behavior, and family relations" (Duguid 1981:65).

Inmates in Maryland who had earned at least 12 credits in a community college prison program were much less likely than nonstudents to recidivate (Blackburn 1981). Several studies conducted in New York State generated similar results. For instance, inmates who earned a college degree while incarcerated were less likely to recidivate, but, as the authors point out, their success may have been due only partly to their participation in college. These inmates also may have succeeded because they were "more motivated and/or competent than those who do not complete these programs . . . these same factors are related to their future adjustments on parole" (Thorpe, MacDonald, and Bala 1984:87). In another statewide study in New York, 26 percent of inmates who earned a college degree in 1986-1987 had been returned to state custody by February 1991; the corresponding figure for nongraduates was 45 percent (New York State 1991:1).[6]

In addition to these studies, research in Alabama found relative success with respect to recidivism (O'Neil 1990); studies conducted in Ohio revealed lower recidivism and better employment history upon release (Holloway and Moke 1986). Again, in Maryland, lower recidivism was the result of participation in a college education program (Hagerstown Junior College 1982; State of Maryland 1989). In Oklahoma, lower recidivism rates were observed, but inmates in education programs were not involved in fewer

disciplinary actions than nonparticipants during their incarceration (Langenbach et al. 1990). In Wisconsin, college attendees were found generally to adjust better to parole conditions (Knepper 1990).

A few studies, however, found no support for the hypothesis that college education leads to reduction in recidivism and to other outcomes. In one Canadian study, researchers discovered no difference in recidivism rates between former students and other inmates, but reported, according to prison staff members, that

> *[p]rogram inmates had better disciplinary records than they had before starting school. Some administrators felt that the program had a stabilizing effect on the prison because of the commitment which the inmates had to make to their studies (Linden et al. 1984:72).*

At the same time, Gendreau and associates (1985) showed that participation in the University of Victoria program at Matsqui Penitentiary did not lead to improved disciplinary records among inmates. They dismiss this finding by arguing that the rate of misconduct in that particular prison is so low that any reduction cannot be statistically significant; instead, alternative measures of institutional adjustment should be used (e.g., the frequency of inmates' grievances). Similarly, in a study conducted in New York State, researchers found little support for the theory that college education reduces recidivism; indeed, persons with more than 60 college credits were *more* likely to be reincarcerated than those with fewer than 30 credits (Lockwood 1991).

As in the case of precollege academic prison education, the methodological rigor of studies does not invariably predict the outcomes of the studies. As shown in Table 3, we gave six studies our highest methodology rating; of these six, four (Blackburn 1981; New York State 1991, 1992; O'Neil 1990) showed a strong inverse relationship between college education and recidivism, while two (Knepper 1990; Linden et al. 1984) showed no relationship. The findings thus are somewhat mixed, but the methodological weaknesses identified by critics cannot explain, in themselves, why some programs succeeded and others did not.

The available studies on the relationship between college education and postrelease employment and education are methodologically weak, but consistently show positive consequences for society. We recommend reserving judgment on these two outcomes until more rigorous studies are conducted.

No definite conclusions can be drawn concerning the relationship between correctional participation in college programs and prerelease disciplinary problems. Of the three studies we found on this subject, two were methodologically sound but generated contradictory findings. Linden et al. (1984) showed the expected inverse correlation; Langenbach et al. (1990) disclosed no correlation between enrollment in prison-based college programs and prisoners' misconduct.

Vocational Education

In his "nothing works" article, Martinson (1974) claimed that vocational education produced no positive consequences. Again, however, his conclusion was based on little evidence. Indeed, in the single study discussed by Martinson that

addressed the issue most directly, Gearhart and associates (1967), found a correlation between vocational training and lower recidivism but only "when a trainee succeeded in finding a job related to his area of training" (Martinson 1974:13). Martinson interpreted this finding as evidence that "skill development programs fail because what they teach bears so little relationship to an offender's subsequent life outside prison" (1974:13).

Most of the research conducted in recent years shows a correlation between vocational training and a variety of outcomes generally considered positive for either society or correctional institutions: lower recidivism rates, lower parole revocation rates, better postrelease employment patterns, and better institutional disciplinary records. (See Table 4). Studying determinants of parole success in a midwestern state, Anderson and associates (1991) showed that among several other factors, participation in academic and vocational programs was correlated positively with successful parole. These researchers (Schumacker, Anderson, and Anderson 1990) also found that "completers" of vocational programs had better employment rates and fewer arrests than noncompleters. In an earlier study, Anderson (1981) found that vocational training leads to longer postrelease employment, fewer arrests, and fewer parole revocations.

Alston (1981) studied the impact of vocational programs in Texas, and found evidence for lower recidivism rates among inmates who participated. Participants also broke fewer rules while incarcerated, a finding that Alston explains as the result of "more positive impulse control" (1981:9). Saylor and Gaes (1992) reported very similar findings in research on federal penitentiaries: inmates who received vocational training while in prison showed "better institutional adjustment" (fewer rule violations) than those who did not receive such training, were more likely to complete stays in a halfway house, were less likely to have their paroles revoked, and were more likely to be employed.

Three other studies, however, contradict these findings. In a study involving inmates released from correctional facilities in Oklahoma, graduates of vocational programs recidivated sooner than members of the control group, namely inmates who did not participate in any of the programs (Davis and Chown 1986). Unfortunately, the authors did not report results of statistical significance tests.

Downes, Monaco, and Schreiber (1989) and Markley, Flynn, and Bercaw-Dooen (1983) conducted similar studies, but they, unlike Davis and Chown, made statistical tests to determine the significance of differences between groups. Furthermore, the study by Markley and associates is noteworthy because their control and experimental groups were more closely matched than those in many other studies. Their experimental group included inmates who completed at least three-fourths of the skills training program for which they were selected; the control group consisted of inmates who had been selected for training but could not participate because not enough training slots were available. By using such inmates for the control group, the authors were able to control more precisely for differences in the study participants' backgrounds. In this way they eliminated some of the competing factors that could affect the outcome of the research. They found that vocational-technical training did not increase postrelease employment

success, nor did it reduce recidivism rates. Furthermore, they found that only 40 percent of the training participants found work related to their training.

In sum, most of these studies indicate reductions in rates of recidivism, better employment histories, and fewer disciplinary problems among inmates who receive vocational training, but at least two recent and well-designed studies show that training does not produce these results. It is conceivable that in the future, all methodologically rigorous studies will find support for the latter finding. Such an outcome, however, is highly unlikely: We found several recent studies of sound design that revealed strong inverse correlations between participation in vocational education and the various outcomes. Anderson (1981) received our highest rating and showed a decrease in recidivism, as did Cochran (1965) and Anderson, Schumacker, and Anderson (1991) (see Table 4). Similarly, Saylor and Gaes (1992) found better postrelease employment patterns and fewer prerelease disciplinary problems among vocational trainees.

We found no studies focusing on vocational education and postrelease participation in education. Research on this issue is needed.

Social Education

Some educational programs in correctional institutions deal with the acquisition of skills that sometimes are called "life skills" and that fall under the heading of "social education." Although social education is defined in various ways (and many different skills are included under "life skills"), advocates of such programs agree that inmates are deficient in the skills needed for coping with daily stresses:

> *Social education as we define it is an organized effort to furnish factual information to the individual in those areas of social and emotional interaction in which his past faulty attitudes have caused him difficulty and to suggest methods by which he can effect a more satisfying and socially acceptable way of living (Baker 1973:241).*

Inmates must be taught these skills in order to adjust to the pressures of life after release; if they do not acquire these skills, recidivism will result (Burchard and Lane 1982).

A few studies examine the relationship between education in social skills and various outcomes. Marshall, Turner, and Barbaree (1989) show that inmates who received training in problem-solving skills, assertiveness and interpersonal functioning, and practical skills in living developed greater self-esteem, became more assertive, less concerned about being evaluated negatively, and more socially skilled. Furthermore, these researchers reported that the programs made participants more empathetic and reduced psychopathy. No data were available, however, to allow us to determine whether these changes led to lower recidivism rates upon release.

Moral development, say some observers, is related to development of social skills. According to this argument, inmates must be encouraged in moral development in order to reduce recidivism; in this way they learn to make moral rather than hedonistic decisions (Duguid 1986; Fox 1989; Michalek 1988; Tope and Warthan 1986). Unfortunately, most of the available writing on this topic is based more on reasoning than on research. An argument for this training can be made on logical grounds, but opposing arguments

are easily constructed (Minahan 1990). According to research conducted in Canada, however, inmates who were exposed to the Living Skills program of the Correctional Service of Canada adjust to life after release better than other inmates.[8]

Finally, Hamm (1991) reported some encouraging results from a prison intervention program aimed at reducing violence against women. Men who had committed such acts of violence participated in a program whose purpose was to teach that "women must not, under any circumstance, become the victims of violence" (Hamm 1991:67). Hamm reports that 80 percent of the graduates of this program were not rearrested during the 18-month period following their release; unfortunately, however, his study did not include a control group of abusers who were not exposed to the program.

Discussion

In an overview of the effectiveness of prison education programs, Linden and Perry (1983) pointed out that the 1950s and 1960s were a period of optimism, whereas the 1970s were characterized by Martinson's assessment that nothing works. On the basis of an additional decade of research, they argued that prison education can produce desirable results:

> *Most evaluations have shown that inmates make substantial improvements in learning, but this does not necessarily have an impact on rates of post-release employment and recidivism. The review of the literature suggests that programs will be most likely to succeed if they are intensive, if they can establish an alternative community within the prison, and if they offer post-release services to inmates (Linden and Perry 1983:43).*

Our own assessment, based on yet another decade of research, is quite similar. Numerous studies show a correlation between participation in correctional education and various outcomes. Furthermore, even though the methodologically less rigorous studies (e.g., those without control groups or with inadequate matches between control and experimental subjects) are likely to show a correlation, there also exist enough scientifically sound studies to make us confident that these positive findings are not statistical artifacts.

Drawing from Linden and Perry's (1983) review of the literature, from Rice and associates' (1980) review of 10 successful correctional vocational programs, and from our own review, we can identify several factors that explain why some programs are more successful than others in achieving their stated goals:

- *The more extensive the educational program, the more likely it is to achieve its stated program objectives. For instance, research in New York State showed that inmates who earned the GED were less likely to recidivate than those who attended GED classes but did not earn the diploma (New York State 1989).*
- *Programs that are separate from the rest of the prison are more likely to succeed. "Successful programs had a designated area for providing vocational education and only vocational education" (Rice et al. 1980:12; emphasis in original).*
- *Programs that provide follow-up after release are more likely to succeed. With respect to vocational education, "successful programs had systematic*

procedures for providing placement services that emphasized employer contact" (Rice et al. 1980:12).

- *Programs that are successful in attracting an appropriate audience are more likely to achieve their intended objectives. For instance, the "Reading to Reduce Recidivism" program in Texas was hampered because it was designed for inmates who would serve short sentences and would be released quickly into the community, whereas the median sentence served by program participants as 15 years (State of Texas 1992).*
- *With respect to vocational education, programs that provide skills relevant to the contemporary job market are more likely to achieve their stated objectives. Administrators claim that their programs offer inmates "salable skills which will enhance their probability of obtaining and maintaining employment in the free world" (Windham School System, no date:12), but critics often maintain that vocational training programs fail because "what they teach bears so little relationship to an offender's subsequent life outside of prison" (Martinson 1976:13).*

As we explained earlier in this report, it is probably unrealistic to expect prison education to offset all social and psychological reasons for recidivating, for being unable to find or keep a job, for not continuing educational progress after release, or for having disciplinary problems in prison. In an overview of 71 studies that analyzed predictors of recidivism, Pritchard found that

> *[a]n offense of auto theft, the presence of prior convictions, stability of employment, age at first arrest, living arrangements, current income, history of opiate use, and history of alcohol abuse appear to be the most stable predictors of recidivism (1979:19).*

These findings are supported by a 1991 study of recidivism patterns conducted by the Texas Department of Criminal Justice. With respect to demographic traits, releasees who were young when released, who were black, male, and single, who had little formal education, who were raised by people other than their natural parents, and who had family members involved in crime were more likely to recidivate than their demographic counterparts. Furthermore, the younger they were at first arrest, conviction, and incarceration, the more likely they were to recidivate (Eisenberg 1991).

In sum, the research shows a fair amount of support for the hypotheses that adult academic and vocational correctional education programs lead to fewer disciplinary violations during incarceration, reductions in recidivism, to increases in employment opportunities, and to increases in participation in education upon release. Future research, however, must employ more precise controls for extraneous variables that may have an independent effect on the various outcomes. Without adequate control techniques, it is difficult to speak definitively about the impact of correctional education programs. In addition, future research should focus on questions not addressed or answered in the literature. This research primarily should analyze the relationships between precollege and college education and disciplinary problems during incarceration, between college education and postrelease employment and education, and between vocational education and postrelease participation in education.

Notes

1. For an excellent example of a study whose authors control for this problem, see the various reports on the *Post Release Employment Project* (PREP) of the Federal Bureau of Prisons (Federal Bureau of Prisons 1985, especially pp. 9-12; Saylor and Gaes 1987, 1992).

2. See the appendix for a list of publications that we examined but did not include in this review.

3. The study that Martinson identified, by Gearhart and associates (1967), deals more with vocational education than with academic education, and is discussed below.

4. The correlation between adult secondary education and recidivism also has been observed among probationers. Walsh (1985) found that probationers participating in GED preparation programs were less likely than nonparticipants to be rearrested; if rearrested, they were less criminally involved (fewer and less serious crimes).

5. For a recent review of literature that criticizes the presumed positive effects of education on correctional outcomes, see Jengeleski (1984).

6. For another, earlier study in New York State showing support for the recidivism hypothesis, see Wolf and Sylves (1981).

7. According to the author, this research proves that education does not lead to an increase in inmates' moral development–at least, not enough to prevent recidivism.

8. Numerous articles, reports, and books have been published on this research. For an overview consult Fabiano (1991), Ross and Fabiano (1985), and Ross, Fabiano, and Ross (1988).

CHAPTER 2
A LIMITED CAPACITY TO TREAT: EXAMINING THE EFFECTS OF PRISON POPULATION CONTROL STRATEGIES ON PRISON EDUCATION PROGRAMS

Abstract

The number of prisoners across the country has increased dramatically throughout the 1980s. Texas is one state that has felt the strain of prisoner population pressures. To keep abreast with demand, more state prison units were built. However, new prisons were soon filled to capacity. This situation forced policy makers to implement a population cap and an allocation formula. To keep the prisoner population within the cap, prisoners were released early and time served declined rapidly over the course of the 1980s. These latter consequences severely impacted the ability of the Windham School System to deliver prison education programs. The data showed that one in seven inmates was released prior to taking a vocational certification test. Various policy options are then explored.

Introduction

It is fast becoming trite to speak of prisons as a growth industry in America (Christie 1993). The steady expansion of the incarcerated felon population over the past decade has been staggering. For example, the number of prisoners in America increased by 115 percent or from 329,000 to 710,000 between 1980 and 1989. To accommodate this deluge of prisoners, forty eight states and the Federal Bureau of Prisons constructed 975 new correctional institutions (Allen and Simonsen 1989). However, despite this expansion, by 1989, thirty-seven states were under some form of court order related to crowding (Byrne and Kelly 1989). In short, demand for prison bed space has far exceeded supply.

In a scramble to manage the rising tide of persons under correctional supervision and the reality of judicial intervention, many states implemented a wide range of community-based supervision programs. Illustrative of such programs are electronic monitoring, intensive probation, restitution centers, house arrest, boot camps, and community service (Byrne, Lurigio, and Petersilia 1992; Dilulio 1991; Lilly 1987; Morris and Tonry 1990).

To date, virtually all journalistic, academic, and lay commentary on the growth of state and federal imprisonment has focused on such readily visible issues as the explosion of prison budgets, the rising cost of prisoner care, net widening, unmanageable parole caseloads, and overcrowding. Although the capacity to punish has been well-described, analysis or discussion has not focused on a prison organization's capacity to "treat" incarcerated offenders. Prison growth most certainly means more prison officers and cells. But can the same be said for prison treatment programs?

Prisons serve the dual purpose of confining criminal offenders (ensuring public safety) and returning them to the free community to lead law-abiding lives (treatment). Though scholars have recently questioned the efficacy of prison treatment programs (Logan and Gaes 1992; Cullen and Gilbert 1982), the fact remains that correctional systems invest millions of dollars and the time of thousands of staff in treatment efforts. Such investment of resources will

probably continue in the short term. Moreover, specific treatment programs within various institutional settings have to some extent proven successful (Gendreau and Ross 1987)

Prisons perform varied functions in our society: incapacitation, deterrence, and punishment. This paper argues, however, that the prison is also a service delivery organization in which inmate treatment programs are not immune from shifts in the larger political environment. More specifically, this paper examines the effects of prison capacity constraints on a prisoner education program in the Texas prison system. Our interest lies in the effects of a prisoner population cap on the ability of the Windham School System, one of the largest and most well-regarded prisoner education programs in America, to deliver a prisoner education program. But, first we briefly examine the Texas prison population crisis, the steps justice system policy makers initiated to keep the prison system open and in compliance with a judicially-mandated population cap, and the implementation of a prisoner quota system. Next, we examine the relationship between time in prison and time spent in educational and vocational programs. Finally, we discuss several policy options for dealing with the current defects in the educational program available to prison and prison education administrators.

Background

Texas, like most other states, has experienced enormous prisoner population growth. In this section, we describe the prison crisis and the various steps state criminal justice policy makers used to manage the burgeoning prisoner population. This section specifically addresses: (1) measures state officials took to control prisoner inflow; (2) development of the prison allocation formula; and (3) results of the population control policies and ramifications for prisoner education programs.

Early Attempts at Population Control

Between 1971 and 1990, the total number of Texas prisoners increased almost 300 percent, from 15,418 in 1971 to 45,000 in 1990. Between 1980-1990, 38,357 beds or 20 new prison units were added to the prison system. Then, too, the daily cost per inmate increased from $8.64 in 1980 to $34.07 in 1989 (Texas Department of Corrections, Annual Overview 1989, p. 79). State correctional spending increased from $300 million in fiscal 1982 to $802 million in 1989, a 167 percent increase in just seven years (Bullock 1990, p. 2). The 1990-91 correctional budget was $2.02 billion, a thirty-nine percent increase over the previous biennium. Most of these new appropriations went to new prison construction. In the late 1980s, lawmakers also authorized two contracts for four private 500 bed inmate pre-release centers (Ethridge 1990).

In conjunction with massive prison construction, various "front door" measures were implemented to divert convicted offenders from the penitentiary. For example, probation services were expanded to divert eligible convicted felons from prison. Roughly 80,000 convicted felons were sentenced in 1980 to probation. This figure increased to over 291,156 by 1989, or twelve percent of the nation's total (Jankowski 1991). Even so, these efforts failed to reduce local demand for prison beds.

The most controversial policies designed to reduce prison admissions, the Prison Management Act or PMA and the Ruiz Crowding Stipulation, specified that the Texas prison system could not operate in

excess of ninety-five percent of capacity (Crouch and Marquart 1989). Prison administrators were required to refuse all new admissions until enough prisoners eligible for early release on parole were released to maintain the legally specified capacity. The "back door" was opened, like an emergency exit, to relieve the inmate population pressures at the front door.

Legislators compounded the situation by enacting additional laws in the mid-1980s to lengthen prison sentences (e.g., flat 5 and 10 year sentences for certain categories of drug offenses) which added more strain on the prison system. Offenders given 10 year or longer sentences were legally eliminated from probation consideration; such offenders had to be imprisoned. These "get tough" actions actually required the state to build more prisons and the release of other prisoners so as to keep the prison system at or below ninety-five percent capacity (Bullock 1990).

The PMA was originally intended to avoid overcrowding and its ill effects on prisoners and staff (Gaes and McGuire 1985). Despite the expansion of prison capacity and probation services, Texas counties continued to send large numbers of convicted felons to prison. Demand for prison bed space did not diminish; new prison units were filled to capacity soon after the ribbon cutting ceremonies. As a result, between February 1987 and September 1987, the prison system closed (or refused to accept new admissions) twenty-one times. In the end, the Prison Management Act became a "back door" prison population control device (Bullock 1990).

The Allocation Formula

Prison closures resulted in a substantial increase in the convicted felon population in county jails. The Texas Commission on Jail Standards estimated that in November 1989, Texas's largest county jails housed about 11,000 convicted felons awaiting transfer to state prisons. Inmates were literally waiting in line to get into prison. To cope with these new pressures, state legislators consolidated adult probation, adult corrections, and parole agencies into the Texas Department of Criminal Justice. Lawmakers also mandated a prisoner quota system or allocation formula in which each county was assigned, on the basis of a formula, a fixed number of prisoners who could be transferred to the state prison system (Thurman, Cuvelier, and Marquart 1990).

This formula was designed to regulate and systematically control prison admissions. It consisted of the following six items: (1) the proportion of the state's prison admissions in the preceding twelve months (historical factor); (2) the proportion of the state's violent index crime in the preceding twelve months; (3) the proportion of the state's total index crime in the preceding twelve months; (4) the proportion of the state's total arrests under the Texas Controlled Substance Act in the preceding twelve months; (5) the proportion of the state's population residing in the county; (6) the proportion of the state's total unemployment (Texas Board of Criminal Justice, Allocation Formula Overview, May 16, 1991). Even though it was not pretested in any way and despite protests from county sheriffs, the formula became state law on August 31, 1990 (Cuvelier, Huang, Marquart, and

Burton 1993). Moreover, the citizenry was not allowed to express its opinion about the development or purpose of the prisoner quota system, or how the formula might affect public safety (Jacobs 1983).

Results of Population Control Policies

The intended and manifest result of the population cap was the early release of thousands of prisoners prior to expiration of their sentences. Administrative actions bent on compliance with the population cap resulted in the wholesale parole of prisoners. Table 5 illustrates the rapid turnover of the Texas prisoner population between 1980-1990. In 1980, just over 7,000 Texas inmates were paroled, while by 1985, the figure had grown to almost 9,500. By 1990, over 45,000 prisoners were released from state prisons on parole (Kelly and Ekland-Olson 1991, p. 604). According to Jack Kyle, chairman of the Texas Board of Pardons and Paroles, "during this period of time [late-1980s] parole in Texas became an open door" (Robison 1992, p. 1). By way of comparison, the national parole rate in 1983 was 135 parolees per 100,000 population and increased to 248 in 1989. In Texas, the 1983 rate was 290 and in 1989 the figure leaped to 758 (Kelly and Ekland-Olson 1991, pp. 604-605). The data in Table 5 also show that by 1990, the prisoner population nearly reached complete replacement, with as many prisoners being released as were admitted annually.

One unintended outcome of the early releases from prison was a rapid downturn in time served in prison. The data indicate that the average flat time served for all inmates released from prison in 1980 was nearly three years, but by 1986, this figure fell to twenty-four months, and by 1990, the average time served dipped to seventeen months (Bodapati 1993). Time served in prison by offense categories is even more revealing. For example, Texas drug offenders released in 1980 served an average of two years, while by 1990 drug offenders served just seven months behind bars. In comparison, a national survey of inmates found that drug offenders "expected" to serve an average of thirty-six months before being released from prison (Beck, Gilliard, Greenfeld, Harlow, Hester, Jankowski, Snell, and Stephan 1993, p. 7). Because of this situation in Texas, some convicted offenders opted for a prison term (and a quick release on parole) rather than a lengthy term in some form of community supervision (Crouch 1992).

These data on parole releases and time served illustrate that Texas criminal justice policy makers were overwhelmed by the prison crisis. All activity and attention was directed toward maintaining compliance with the population cap. The construction of additional prison units failed to relieve population pressures. But, what effect did the prison crisis have upon prisoner education? We turn now to this question, beginning with a brief description of the Windham School System.

The Windham School System

Education, whether it be religious, vocational, or academic instruction, has been part of correctional treatment programs since the inception of the penitentiary (Rothman 1971; Glaser 1964). Correctional administrators and citizens alike have long regarded such instruction as an important tool in preparing inmates to lead law-abiding lives following release to the free community. Most prison systems across the nation have prison education programs and Texas is no exception.

The Texas state legislature created the Windham School System in 1969 to "provide the opportunity for students to acquire academic and vocational skills necessary for any adult" (Texas Performance Review 1992, p xiii). Windham's mission was, and is, to raise inmate literacy levels as well as to provide prisoners with vocational skills to enable them to join the work force upon release from prison. Both goals were aimed at reducing recidivism. The WSS is legally an independent school system like any other local Texas community school system. Each prison unit has its own principal, teachers (all certified and accredited according to state regulations), and student prisoners.

The WSS currently offers basic adult and high school equivalency, bilingual, special education, and a wide variety of vocational classes (e.g., automotive, refrigeration, woodworking). Both classroom and in-cell programs are available to prisoners. Death Row inmates, for example, are eligible for in-cell classes. Most important, the original legislation required all inmates who did not possess a high school degree and who scored below the sixth grade literacy level to enroll in the education program.

The size and scope of the WSS is immense. In 1985, it provided educational services at 26 prison units, with an average daily attendance of 6,420 inmates. By 1991, this figure grew to 36 institutions and 10,393 inmates. These latter figures underscore the rapid growth of the Texas prison system in general. The costs of operating this program are large. Bi-annual operating expenditures for 1984-85 were $17,369,292 and grew to $31,255,313 in 1991-1992 (Annual Performance Reports, Windham School System). Finally, the WSS has over the past two decades established a national reputation among correctional education program administrators.

Sources of Data

Data for this analysis were obtained from a larger project that evaluated the effect of the Windham School System's prisoner education program on inmate institutional and post release conduct. Data were collected from two primary sources, the Texas Department of Criminal Justice Institutional Division Annual Reports and the Windham School System. From the prison system, we collected data (e.g., prison number, average sentence length, average time served in prison) on 73,990 "new receives" or inmates admitted for the first time for a new felony conviction and 66,160 prisoners who exited (i.e., paroled or discharged) Texas prisons between 1990 and 1992.

The time frame under study (1990-1992) was selected because it contained the richest, reliable, most detailed, and comprehensive WSS information on inmate program participation and individual performance. A wealth of information on individual inmates was collected from the Windham School System data files, including general information such as the person's prison number, educational level at admission to prison, types of classes attended during confinement, dates of testing, whether or not the inmate-student passed and received a certificate, the number of in-class participation hours, and unit changes in grade levels.

We matched (by prison number) the WSS data to the larger prison data set of new receives and discharges in order to identify prisoners who participated in WSS academic and vocational courses between 1990 and 1992. This procedure identified 21,388 academic enrollments and 6,919

inmates who participated in vocational courses.

WSS academic programs are geared toward raising the functioning level of program participants. Most important, the WSS regards a one grade level increase for an inmate participant (e.g., fifth to sixth grade) to be a significant personal and organizational accomplishment. The WSS measures the performance and effectiveness of the vocational courses by the total number of certificates generated.

Texas prisoners, like those in most other state prison systems, are not randomly assigned to prison units, instead they are placed in specific institutions on the basis of criminal history, age, and prior prison experience. Inmates, because of their varied backgrounds and levels of risk, require different types of institutional security.

Prison classification personnel in Texas sort all new admissions into the eight segregative classes which are identified in Table 6. "First offenders" are felons admitted to the state prison system for the first time, although many of them have committed previous undetected offenses or were in lower forms of punishment. Recidivists generally refer to prisoners who have been previously imprisoned no more than two times in an adult institution. Habituals and malcontents (classes IIC and III) are inmates who have previously been incarcerated more than three times and are over the age of twenty-five. Class III inmates constituted a very small group and were eliminated from subsequent analyses.

The Window of Opportunity

The population cap forced justice officials to take extraordinary steps to keep the Texas prison system at or below 95 percent capacity. What impact did this structural constraint have on state-supported prisoner educational and vocational programs? Did the drop in time-served in prison affect the WSS? For an intervention program to "work," clients must have the opportunity to experience or participate in the entire treatment regimen. We define the "window of opportunity" as the time necessary for an inmate to achieve a one grade change in the academic program or receive certification in a vocational course. This definition comports with WSS program expectations and performance goals. Table 7 shows the average time-served in prison, along with the average time it took an inmate to achieve a one level grade change in the academic program or certification in a vocational course. Table 7 indicates that during 1990-1992, prisoners in three of six segregative classes were not incarcerated a sufficient length of time to advance one grade level. Further, classes IB and IIC served barely enough time to progress one grade level. In other words, the "window of opportunity" or the time it takes to advance an inmate's grade level was structurally constrained by the lack of time-served in prison. Compounding this problem was the fact that twenty-seven percent of the students in 1991-1992 required by law to enroll in remedial classes had to wait for an opening due largely to inadequate class space (Texas Performance Review 1992, p. 11-18).

The data reported in Table 7 suggests that the average time it takes to achieve vocational certification was well within the range of time served in prison. First appearances might suggest that inmates in the vocational program have more than enough time to complete a course before release, but this would be an inaccurate conclusion.

Vocational courses, like their academic counterparts, were subject to a delay factor. There were a limited number of vocational courses and a limited number of slots available, thus inmates had to queue up and wait a period of time before participating in a particular course. Table 8 indicates the time the average inmate (by segregative category) was required to wait in days and in months before beginning a vocational course. In general there was a six-month wait before the actual first vocational class day. When this delay is added to the average time to certification (see Table 7) along with average time served, it can be seen that prisoners were in jeopardy of leaving prison before completing a particular vocational course. This situation represents a classic example of queuing theory (Saaty 1961). Further analysis revealed that during the time period under investigation, 974 out of 6,919 prisoners were released from prison while participating in a vocational course. In other words, one out of seven inmates enrolled in a vocational course began it and then exited prison before certification.[1]

The data also allowed the examination of another variable affecting time served in prison-- time spent in the county jail. As already noted, the population control measures combined to slow down prison admissions but in turn created a severe backlog in the county jails. According to Robison (1993), the jail backlog in November 1993 was 28,426. Between 1990-1992, prisoners served twenty-six percent of their sentences in the county jails. By the time many inmates reached prison, one-quarter of their sentence had already been served. This situation severely limited the window of opportunity. In sum, the combined "trickle down" effects of population control policies and early releases severely attenuated the original WSS performance measures.

The early release program was a random process, hence it would be unfair to contend that prison officials enrolled inmates in classes, knowing full well it would be impossible for them to complete them. The decision to release was an administrative one beyond the control of classification personnel and prison educators. In short, the data strongly suggest that prison personnel enrolled inmates in WSS programs with the expectation that they would complete them, but those expectations were frustrated by early release practices.

Policy Options

Inmates in Texas continue to serve only a fraction of their original sentences. This reduction in time-served has had major unintended consequences for the educational and vocational programs offered by the Windham School System. Our data indicate that the window of opportunity for inmates (in a number of custody categories) in both educational and vocational programs has been virtually closed. The time it takes to effect a one grade level change or to achieve vocational certification surpasses the average time served in prison. Policy solutions to rectify this situation are varied and pose additional dilemmas.

One option would be to extend time served in prison so that inmate students could be exposed to the entire course or program of study, but this poses major financial and material problems. First, lengthening time served by twelve months, for example, would adversely affect prisoner turnover, existing prisoner bed space, and jeopardize compliance with the population cap. More institutions would have to be constructed to house a

larger, more static prisoner population, thus this option is not likely, given the cost of such a prison construction program. Whether or not the public would endorse building prisons to enhance prisoner education is open to question. Few politicians are likely to stake their careers on a "prisons-for-education" platform. Increasing the time-served for certain categories of offenders further would not take full effect for several years, thus, in the meantime other options must be developed and debated by lawmakers and the public alike.

Second, increasing time served would create a "stacking" effect of inmates waiting for the educational services afforded by the WSS, especially in the vocational courses. Third, the WSS could hire additional staff and expand course offerings, but this option (and the related expenses of additional textbooks, classrooms, and trade machinery) would be very costly.

The latter policy options obviously require more money. Their full political and economic implications remain unclear and require additional analysis well beyond the scope of this paper. However, our brief discussion makes clear that money alone can not solve the current dilemma. Yet, two additional policy options without major fiscal requirements exist.

First, lawmakers could simply abolish the prisoner education program. Abolition, however, would pose significant social costs and raise serious issues about the abandonment of prison treatment programs as well as signaling a retreat to prisons-as-warehouses. Further, abolition would result in the termination of thousands of WSS personnel and the end of a long-established prisoner treatment program.

Often lost in the debate about prison education programs are the important instrumental ends such activities serve in prison governance, institutional stability, and control. Inmates who attend several hours of class each day are busy and occupied, rather than being idle. Inmates who are busy and occupied are not security problems. Abolition of educational programs would mean that additional programs to keep the inmates occupied in some useful activity, (e.g., inmate industries and other profit making ventures) would have to be funded, staffed, and implemented. Moreover, it is by no means certain that "replacement" programs could handle all the former WSS inmates.

Abolition, though a possibility, is not likely. We are, therefore, left with one final policy option--the practical one. The data presented here underscore the need for improved resource management and the development of more appropriate performance measures for the WSS. In the first place, during the classification process, prison and WSS personnel could identify inmates with the greatest likelihood of completing various education programs. Given current structural constraints, prison staff would have to prioritize or implement eligibility requirements for specific WSS offerings.

The large and growing population of prisoners in county jails also suggests that the prison classification process may have to be transferred in part to the county jails. Classification personnel in jails could identify those inmates who could most benefit from the existing window of opportunity. This action would most directly aid the vocational programs. Prison educators might also examine how other states faced with a similar plight responded to the situation and might also explore the possibility of developing "fast

track" or intensive programs for offenders most likely to be affected by early release policies. Finally, prison and parole authorities could develop new educational programs that bridge the prison and free community.

Discussion and Conclusions

This paper began with a discussion of the prisoner population crisis Texas. We indicated that demand on a finite state resource, in this case prisons, has exhausted supply. State policy makers enacted various regulations to control the flow of prisoners from the counties. Maintaining compliance with the cap, however, was not without consequences. Crisis management led to additional crises and unforeseen dilemmas. One unintended side effect was the early release of thousands of prisoners. Correctional policies implemented, however, to address one specific problem oftentimes have important and unforeseen side effects. Our findings indicated that correctional policies aimed at regulating prison populations had negative consequences for prison treatment programs. Effective correctional treatment depends, in a large part, on an available "window of opportunity," in which offenders have the necessary time to experience the full effects of programs. The move to comply with the population cap produced a situation whereby the average number of months in prison was less than the average number of months needed to advance one grade level or to attain vocational certification. Accordingly, the opportunity to benefit from educational programming escaped many inmates.

This analysis underscores the prevailing cognitive dissonance which legislators, policy makers, and the public alike have towards the prison (Burton, Dunaway, and Kopache 1992). Should the prison be a warehouse? Should prisons treat offenders? Do prisoners "deserve" treatment? What makes an effective prison education/training program? Is it possible to strike a balance between population caps and treatment programs for offenders? Who should have the most influence and power over prison policies? These are not new questions by any means but answers to them have not been forthcoming. It is incumbent on policy makers to review potential consequences, both manifest and latent, before policies are fully implemented (Jacobs 1984; Feeley and Sarat 1980).

The cost to the state for noncompliance with judicially decreed population mandates would be prohibitive in terms of fines. However, the costs of closing the window of opportunity (in terms of possible reductions in recidivism, and providing education and training for the truly disadvantaged in our society) certainly solidifies the notion that prisons are indeed warehouses. Returning unprepared and untrained prisoners to the free community would also pose a threat to public safety. A balance must be struck between population control measures, inmate programming, and public safety. There are no easy choices.

Administrators of "free world" school districts are increasingly required to reexamine their delivery system (e.g., instituting the twelve month curriculum) to meet the needs of a changing student population. Prison organizations and prisoner programs, like school districts, do not exist in a vacuum, insulated from legislative and judicial mandates. In particular, prison program administrators must increasingly be sensitive to the shifting nature of punishment and criminal justice policy making.

This paper has also demonstrated an important lesson about the dynamics of correctional policy making. Attempts to control prisoner population levels can have negative unintended consequences for entire prison organizations and individual inmates alike. A longitudinal analysis of prison systems with similar population constraints would illuminate the effects of such constraints on a wide variety of prisoner programming, activities, and budgets (Jacobs 1983). Students of the prison would also do well to pay more attention to the latent or unintended effects of policy on all facets of the prison organization. Finally, charting the effects of policy on the service delivery aspects of prison organizations will increase our understanding about the role and effectiveness of treatment and the obligations of the state toward incarcerated citizens.

Note

1. The data also allowed the examination of another variable affecting time served in prison–time spent in the county jail. As already noted, the population control measures combined to slow down prison admissions but in turn created a severe backlog in the county jails. According to Robison (1993), the jail backlog in November 1993 was 28,426. Between 1990-1992, prisoners served twenty-six percent of their sentences in the county jails. By the time many inmates reached prison, one-quarter of their sentence had already been served. This situation severely limited the window of opportunity. In sum, the combined "trickle down" effects of population control policies and early releases severely attenuated the original WSS performance measures.

CHAPTER 3
THE EFFECTS OF ACADEMIC AND VOCATIONAL PROGRAM PARTICIPATION ON INMATE MISCONDUCT AND REINCARCERATION

Abstract

This study examined the prison behavior and postrelease recidivism of more than 14,000 inmates released from Texas prisons in 1991 and 1992. Comparisons were made between participants and nonparticipants in prison education programs on a variety of behavioral outcomes. The findings suggest that these programs may be most effective when intensive efforts are focused on the most educationally disadvantaged prisoners. Implications for correctional education policy and correctional program research are discussed.

Introduction

Inmate education programs have been a central feature of state correctional systems since the 1930s (Clemmer, 1958). Beginning with "training schools" for delinquents, the provision of academic and vocational education programs has become almost a universal element of incarceration. These programs address the glaring educational deficits that offenders present upon admission (Glaser, 1969). They also reinforce deeply held cultural beliefs about the importance of education for achieving a productive and satisfying life.

Education programs within prisons also have several attributes that make them attractive to correctional administrators. They provide incentives to inmates in surroundings that are otherwise devoid of constructive activities, they provide exposure to positive civilian role models, and they engage inmates for many hours in quiet, productive activity in a otherwise monotonous institutional environment. Education programs are a key component of what has been called "dynamic security" within prisons.

In addition to these presumed benefits of educational programs for institutional management, corrections leaders hope that upgrading offenders' educational levels will increase their opportunities to lead crime-free lives after release. Investments in correctional education programs are thought to bring rewards in the form of lower recidivism rates (Sharp, 1993). This research examines these assumptions in a large, multiservice state prison education system.

Our review of the scientific literature supports the view that adult academic and vocational correctional education programs may be associated with fewer disciplinary violations during incarceration, reductions in recidivism, and increased rates of employment and participation in education programs upon release. (See Chapter 1). These findings, however, are based on studies that often observed small samples, employed widely varying definitions of concepts, used varying follow-up periods, and applied differing definitions of recidivism.

This study is part of a larger research project that examines the impact of prison education programs in Texas, and extends and expands the line of research described in Chapter 1 above. The Prison Education Research Project (PERP) was designed to address questions about the effectiveness of educational programs offered by the Windham School System (Windham), the

educational programs division of the Texas Department of Criminal Justice-Institutional Division (TDCJ-ID).

Methodology

Ideally, a study of the effects of prison education programs on inmates' behavior would involve needs assessment of inmates entering prison, random allocation of inmates to programs that are matched to each inmate's need, collection of detailed information on the inmates' performance from teachers' ratings and educational test scores, collection of detailed information on other aspects of the inmates' prison experience based on prison records and interviews with the inmate, and extended observation of the inmates' postrelease behavior with regard to criminal activity, employment, and further involvement in educational programs. Obviously such a study would be extremely expensive and time-consuming. In addition, postrelease follow-up findings would be unavailable for many years because of the nature of the data collection. Our approach was directed by the need for more timely information, so we employed a design that involved a naturally occurring, intact comparison group (Rezmovic, 1979).

We selected a sample of 14,411 inmates released from the Texas Department of Criminal Justice - Institutional Division between March 1991 and December 1992. The sample included all inmates released on parole, mandatory supervision, and expiration of sentence. The sample was limited to inmates who were classified as newly received on the sentenced offense; released parole violators were not included in the sample.

The strategy of studying a release cohort offers a number of advantages. The sample is relatively large, capturing inmates in different Windham programs as well as inmates who did not participate in any educational programs. Also, the inmates in the sample had completed their sentence, so their educational and disciplinary experiences throughout their prison stay could be investigated. Finally, the sample provides a contemporary picture of the prison system while allowing adequate time for a follow-up of criminal behavior in the community.

Having designated the release cohort, we obtained computerized information maintained by the TDCJ-ID and Windham. The TDCJ information covered social and demographic variables (e.g., age, race, sex, marital status, educational achievement), criminal history and current offense variables (e.g., conviction offense, sentence length, time served, prior incarcerations), and disciplinary involvement (e.g., major and minor infractions). We used background information to describe the sample and to identify differences between Windham and non-Windham inmates. The information on major and minor disciplinary infractions represents an important outcome variable in the analyses. The Windham School System provided information on educational test scores and program involvement, regarding both the type of program and the number of hours of participation.

We used return to prison as the primary outcome variable for the community follow-up. This information was provided by TDCJ-ID on a computer tape of prison admissions from January 1991 through March 1994. By matching identification numbers of the released inmates against the admissions file, we identified inmates in the sample who had been returned to prison, and calculated elapsed time to readmission for recidivists. We used this information to supplement the standard

recidivism variable, return to prison, by examining whether Windham participation delayed the return to prison for those inmates who recidivated.[1]

Because the follow-up information was collected with regard to a fixed point in time (March 1994) and because inmates have different release dates, the length of the follow-up period varied among inmates. The follow-up period for the sample varied from 14 to 36, months depending on when an inmate was released. This variation could be a problem if inmates in Windham programs were systematically exposed to shorter or longer follow-up periods than non-Windham inmates, but examination of the distribution of follow-up periods for groups of inmates by service delivery category showed that the distribution was nearly identical for all groups. The average follow-up period was 25 months for non-Windham inmates, inmates in Windham academic programs, and inmates in Windham vocational programs, and 24 months for inmates in both Windham programs. Thus the variations in length of follow-up should not bias comparisons of groups by type of service delivery.

Findings

Sample Characteristics

Table 9 displays the social, criminal, and educational characteristics of Windham and non-Windham inmates. We compared groups of inmates who did not participate in Windham (the "none" group), inmates who participated only in academic programs, inmates who participated only in vocational programs, and inmates who participated in both academic and vocational programs. The major findings in this table pertain to the IQ and EA (educational achievement) test scores of inmates in academic programs and to the effects of time served on participation in both academic and vocational Windham programs. The comparisons reveal that *inmates in the academic programs had substantially lower IQ and educational achievement test scores than inmates in other categories*. That is, Windham academic programs enroll educationally and intellectually disadvantaged inmates.

We also examined the extent to which Windham delivers services to inmates who are required by statute to participate in educational programs because they have less than a sixth grade educational achievement test score and lack a high school degree or its equivalent. The data show that 59.8% of the inmates who participated in academic programs fit the criteria for mandatory education, while 40.2% did not. Among inmates who did not participate in any Windham programs, 44.1% met the criteria for mandatory education. There are many reasons why inmates who are mandated to participate in education programs do not receive services: for example, program resources vary by institution, or inmates differ in classification status, motivation, cooperation, and length of sentence. Similarly, there are many reasons why prison academic programs should reach beyond the most disadvantaged group of inmates. From the standpoint of program evaluation standpoint, however, the findings suggest that the assignment process for participation in prison academic programs does not correspond with official policy goals.

Time Served and Exposure to Windham Programs

Length of prison stay was related strongly to hours of service delivery. Overall, non-Windham inmates served an average of

4.5 months in prison, Windham academic participants served 5.6 months, Windham vocational participants served 6.7 months, and Windham inmates participating in both programs served 7.6 months. The data also showed that time served was related to total hours of participation in Windham programs. For example, among Windham academic inmates with 300 or more hours of academic programs, more than two-thirds served more than 9 months in prison. In contrast, fewer than 11% of non-Windham inmates served more than 9 months.

The fact that inmates in academic programs served an average of only 5.6 months should not be overlooked in assessing the performance of these programs, because time served relates directly to Windham's opportunity to work with inmates. Hudson (1977) described a common characteristic of correctional programs, namely that offenders are not exposed to the "treatment" for a long enough time. He referred to such diluted treatment efforts as "puny interventions." When the average time-served figures are considered in connection with the low IQ and low EA test scores discussed above, the predicament faced by prison academic programs becomes even more difficult to resolve. These data suggest strongly that the "window of opportunity" available to Windham programs is very small. In other words, the dosage effect of prison education programs in a revolving-door correctional system is very limited. (See Chapter 2).

Program Participation, Accomplishments, and Outcome Measures

Tables 10 through 14 compare the non-Windham with the Windham inmates with regard to measures of program participation and accomplishment. We examined the type of program, mandatory participation, hours of participation, and achievement in the program in relation to prison disciplinary infractions and return to prison.

Program participation, prison disciplinary infractions, and return to prison. Table 10 shows that participation in academic and vocational programs, when measured in a straightforward yes/no manner, bore no relation to reincarceration. For all practical purposes, the percentage of inmates who were returned to prison did not vary across groups of Windham and non-Windham inmates; between 21% and 25% of inmates in the various groups were returned to prison. The data also show that participation in Windham academic and vocational programs was not related to the number of months to return for reincarcerated inmates. On average for the various inmate groups, 14 to 16.7 months passed between release and reincarceration.

Table 10 also distinguishes, in the non-Windham group, between inmates who were and were not eligible for academic programs. (In general, inmates with a high school diploma or the GED, its equivalent, are not eligible for school programs.) This distinction provides a clearer assessment of Windham's performance by comparing actual clients (the Windham group) with potential clients (Windham-eligible with no service), and thus controls for prior educational experience to a modest extent. Among the no-service group, the noneligible inmates had a considerably lower reincarceration rate (19.1%) than the eligible inmates (25.1%).

Windham participation had a strong relationship to involvement in major and minor disciplinary infractions. Among non-Windham inmates, 24.1% were involved in minor infractions during their

prison stay, compared with 34.1% in academic programs, 29.9% in vocational programs, and 44.7% in both programs. Corresponding figures for involvement in major infractions were 5.7% (non-Windham), 8.4% (Windham academic), 7.8% (Windham vocational), and 12.4% (both). These findings are surprising because they are opposite of what would be predicted on the basis of the prison management literature. Possibly the figures are biased because inmates in Windham programs served more time in prison and therefore had more opportunity to violate prison rules or a greater risk of exposure to violations. This issue is discussed below.

Mandatory education and outcomes. Table 11 examines the outcomes of the mandatory service inmates (generally those with less than a sixth-grade education) by whether the inmates actually received service. About half of the mandatory service group did not enroll in Windham programs. Recidivism rates varied little among groups of inmates, ranging from 22.2% to 25.3%. Among inmates in the mandatory service group, those who received services had lower reincarceration rates than those who did not, although the difference was very small (25.3% vs. 23.1%). We obtained similar findings with regard to the number of months to reincarceration for those inmates who failed while in the community. Thus, according to these data, the policy of mandating participation in educational programs, although admirable, does not reduce recidivism. Table 11 also shows that participation in academic programs was related to prison misbehavior: Windham inmates again displayed higher rates of involvement in both minor and major disciplinary infractions.

Hours of participation in educational programs and outcomes. Table 12 examines the relationship between the number of hours in Windham programs and the outcome variables. Because of the relatively short time served in the Texas prison system during the period examined here, we must take into account the quantity of services actually received. Hours of participation are a more discriminating measure of program exposure that indicates participation more precisely than the simple yes/no measure of participation used thus far in the analyses.

The data show that the number of hours of participation in both academic and vocational programs was related negatively to recidivism and positively to prison misbehavior. Inmates with fewer than 100 hours in academic programs had a reincarceration rate of 25.0%, compared with 16.6% for inmates with more than 300 hours in academic programs and 23.6% for inmates who did not participate in academic programs. Similarly, inmates with fewer than 100 hours in vocational programs had a recidivism rate of 22.8%, inmates with more than 300 hours of vocational programs had a rate of 18.3%, and inmates who did not participate in vocational programs had a rate of 22.4%. The data suggest that participation in academic and vocational programs has discernible dosage or exposure features: recidivism rates declined only after 200 hours of program participation. Our decision to categorize service delivery in blocks of 100 hours was somewhat arbitrary, but the data show that academic and vocational programs exhibit a dose-response curve, such that relatively brief periods of participation had little or no effect.

Finally, the data show that extended participation in academic and vocational programs was associated with increased violations of prison rules. With each 100-hour increase in program participation, the rate of minor and major rule violations increased. Inmates with more than 300 hours of Windham participation had a minor infraction rate about two times greater and a major infraction rate about three times greater than non-Windham inmates. In part, this finding reflects the influence of time at risk because inmates who participated more in prison programs also spent more time in prison and therefore had more opportunity to commit infractions. We examine this issue below.

It is possible that inmates in academic and vocational programs were charged with program-related infractions (e.g., tardiness, classroom misbehavior). A recently completed study of TDCJ disciplinary cases clarifies this issue. A study of disciplinary charges written between November 1993 and February 1994 showed that "Windham areas" of prisons accounted for 8.5% of systemwide disciplinary charges. However, 80% of the charges identified as in the "Windham area" indicated "some aspect of students failing to attend class" (TDCJ, 1994).

Educational Achievement and Outcomes. We also sought to examine the relationship of achievement in academic and vocational programs to outcomes. For inmates in academic programs, we measured achievement in terms of change in educational achievement test scores; for vocational programs, in terms of a certificate of program completion. In principle, these achievement measures offer the most accurate indicator of program exposure for evaluation because they translate directly into change on the part of inmates. Unfortunately our investigation was hampered by the fact that only a small proportion of inmates were tested more than once for educational achievement. Nearly all inmates had an educational achievement score, presumably measured at intake, but only about 1,200 inmates in academic programs, or about 20%, were tested again. Given the large amount of missing data (roughly 80% of the inmates in academic programs), we have little confidence in the reliability and validity of the findings for academic programs.

With this important caution in mind, we found that academic achievement, measured directly, was not related to recidivism or disciplinary involvement. Inmates who increased by half a grade level or more had roughly the same recidivism rates as inmates who made no progress in the academic program when progress was measured in terms of standardized test scores. Among the recidivists, however, inmates who increased at least half a grade level stayed out of prison almost 3-1/2 months longer than inmates who made no academic progress. In view of the conflicting findings and the large proportion of missing data, the relationship between academic achievement and recidivism should be targeted for future study.

Prison disciplinary infractions and monthly participation in educational programs. Table 13 investigates the relationship between monthly participation in academic and vocational programs and prison rule violations. The analysis deals only with inmates who participated in Windham academic programs, and examines whether inmates who participated in Windham programs in a given month were likely to be written up for a violation of prison rules in that month. By examining program and disciplinary involvements monthly, we standardize the time at risk for infractions.

Furthermore, because inmates who participate in programs often do so intermittently, the analysis directly addresses the issue of program participation and rule violations by taking into account the temporal concordance of the two events.

The data show that participation in Windham academic programs was related positively to prison rule violations when we took into account the number of hours of program participation. We found that among Windham inmates who were not in academic programs, 9.4% were charged with a prison infraction, compared with 15% of those who participated. The figures for major disciplinary infractions suggest that violation rates rise when inmates are involved only slightly with programs and decrease when inmates are involved more heavily. Yet because major rules violations are relatively infrequent, small fluctuations in rates can be difficult to interpret. A similar pattern existed for vocational programs.

These findings are counterintuitive in that they are opposite to those predicted by the observations of correctional managers and by findings in the relevant literature. As mentioned previously, it may be that Windham inmates are more likely to be written up for program-related rule violations; this would be the case if Windham teachers were relatively strict. This issue could be explored in future analyses by studying the type and circumstances of prison rules violations by inmates engaged in academic and vocational programs.

Does the program work better for some inmates than for others? That is, are some inmates more amenable to treatment, and therefore do they show greater success, than less amenable inmates who also participated in a program? We explored this issue by examining the outcome variables for various categories of inmates, using the social, educational, and criminal history information displayed in Table 9. *In general, we found that social and criminal history variables were not related to Windham program outcomes.* There was some suggestion that young first-time offenders benefited most from academic programs, but we found no great differences in outcomes by prison segregation class (which is based on a combination of age and prior incarcerations). In contrast, the educational variables showed a substantial interaction with participation in Windham academic programs, as discussed below.

Initial grade levels, participation in education, and outcomes. Table 14 displays the outcome variables by initial grade level and hours of participation in Windham academic programs. Inmates with lower educational levels at intake and inmates who received fewer than 200 hours of academic programs were more likely to recidivate. The data also indicate a significant interaction effect, such that the benefits of academic programming were confined largely to inmates with the lowest academic achievement. In other words, significant participation in academic programs (more than 200 hours) apparently reduced recidivism, but this benefit was limited mainly to inmates at the low end of the academic achievement scale.

For example, among inmates with a 1.0 to 3.9 initial grade level, 26.6% of the non-Windham inmates were reincarcerated, in contrast to 25.7% of the inmates who received fewer than 200 hours of academic programs and 18.1% of the inmates who received more than 200 hours. The difference represents approximately a one-third reduction in the recidivism rate for the intensive service

group; this is the largest effect of Windham academic programs in Table 14. Other inmates benefited from substantial participation in academic programs, but less so than inmates at the lowest grade level. For example, among inmates with a 4.0 to 5.9 initial grade level, the recidivism rate was 27.9% for non-Windham inmates and 20.7% for Windham inmates with more than 200 hours of programs, a one-quarter reduction in the recidivism rate. Similarly, among inmates with a 6.0 to 8.9 initial grade level, the recidivism rate was 26.2% for non-Windham inmates and 20.5% for Windham inmates with at least 200 hours of service, a reduction of about one-fifth. Inmates with a 9.0 to 11.9 initial grade level also show roughly a one-fifth reduction in recidivism rates when non-Windham inmates were compared with inmates receiving at least 200 hours of service (21.4% vs. 16.9%). Overall these findings show that the *most substantial reductions in recidivism are found among inmates at the lowest educational level who receive a relatively substantial amount of academic programming.* Inmates above a 12.0 educational level also benefit from participation in academic programs, but less than those at the lowest level.

Conclusions

This research assessed the impact of Windham programs on disciplinary infractions and recidivism rates, but we should not lose sight of other educational goals. Providing all individuals with educational services is a fundamental value in the American society. Instilling discipline and an education in inmates has been the mainstay of prison programs since the early years of our penal history. In terms of correctional goals we examined involvement in prison discipline (both major and minor offenses) along with reincarceration; we used the latter as a measure of criminal recidivism. We expected that participation in programs would be associated with lower rates of disciplinary infractions and lower rates of recidivism. Windham participation was examined in several ways: simple yes/no answers, the type of program in which inmates participated (academic and/or vocational), hours of participation, and educational achievement. The findings emphasized the importance of measuring such participation in various ways. Hours of program participation surfaced as the most discriminating measure of program exposure; the binary (yes/no) measure of program participation was not discriminating, and use of the achievement variable was hindered by missing data.

Two major findings emerged from our analysis; we believe that they are relevant for discussions of correctional education policy and for consideration in further research. First, the data show that inmates at the lowest levels of educational achievement benefit most (as indicated by lower recidivism rates) from participation in academic programs. Second, some minimum level of program exposure or involvement is necessary if differences in outcomes are to materialize. *When these two factors are combined, the data suggest that the recidivism rate can be reduced by about one-third if extensive services are targeted at inmates at the lowest level of educational achievement.* This is not to suggest that other inmates cannot benefit; in fact, evidence suggests that recidivism is reduced through the 12th grade. Yet, if one is looking for the

greatest return on programming investment, the payoff is clearly greatest for inmates at the low end of the educational spectrum.

The present research cannot explain exactly why inmates at lower educational levels seem to benefit most from educational service. It may be that participating in educational programs improves the self-image of the educationally disadvantaged as well as giving them new skills.

Findings on hours in programming are critical because of the relatively short amount of time served. If programs are to have an impact, some minimum level of services must be delivered. Length of time served, however, constrains an inmate's opportunity to participate in education programs. It might be possible to work within these constraints by identifying clients as early as possible and offering them more intensive services. On the other hand, it might be more practical simply to consider sentence length and expected time served in deciding how to allocate scarce program resources.

In this study, participation in vocational programs showed smaller effects on reincarceration rates, but important information was missing from the analysis. It is crucial to examine postrelease employment availability and to determine whether that employment corresponds to the vocational training received in prison.

This study used data from a period in which Texas corrections suffered major internal and external pressures. Average time served plummeted in Texas during the late 1980s and 1990s, but has increased since 1992 as prison capacity has begun to expand. As capacity increases, time served will increase as well, thus widening the window of opportunity for Windham and other programs. A more suitable approach to addressing offenders' educational deficits would integrate the efforts of community and institutional resources. An integrated correctional case management system would assess an offender's educational needs in community programs and would begin to deliver academic and vocational programs while the offender was on probation. If the offender were subsequently incarcerated, professional correctional educators could continue his or her schooling in prison, and then could arrange for continuing educational services upon release. Public education in the wider society has failed these offenders, so professional correctional educators must assume the burden. In return, a successful correctional education program may offer the promise of reducing recidivism and the associated victimization.

This study further calls into question the often-repeated dictum that "Nothing works in corrections," that unfortunate belief born as a result of the work of Lipton, Martinson, and Wilks. As in numerous studies of correctional effectiveness conducted in the past 20 years, these findings suggest that correctional intervention works best when programs are matched with offenders' needs and are delivered in a concerted, purposeful manner. This point implies that correctional program administrators must be more successful in assigning inmates to programs so as to maximize the use of resources and minimize the prospect of recidivism.

Note

1. It would have been desirable to use rearrest as a criterion variable in the community follow-up because arrest is a more sensitive measure of criminal activity than reincarceration. In fact, we obtained some arrest information on the

sample of released inmates from the Texas Department of Public Safety. Yet because prison records and arrest records could not be matched accurately on the basis of a unique identifier, we used names to match inmates with arrest records. This procedure proved to be inefficient and yielded only a relative small number of arrest records. On the basis of our judgment that the procedures for identifying arrest records generated an appreciable amount of error, we used only reincarceration information in the follow-up. Because this less discriminating measure of criminal activity was used, subtle differences between Windham and non-Windham clients may have gone undiscovered.

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Appendix. Additional Publications Not Discussed in Chapter One

Many other studies of correctional education have been published in addition to those discussed in this review. We selected our studies on the basis of substantive topic, focusing on adult academic and vocational correctional education, and disregarded research on juveniles and on correctional interventions such as drug treatment programs. We also chose our studies on the basis of methodological consider-ations. In general we did not discuss studies that were not the result of empirical research, and we were likely to discount research that did not use control groups.

We reviewed the following list of publications but did not discuss them for one or more of the reasons cited above:

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Williams, D. N. (1989). "Correctional Education and the Community College." *ERIC Microfiche ED 321 835.*

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Table 1. Selection and Evaluation Criteria for Studies Reviewed Here

Selection

Empirical data. Does the study report empirical data, or is it merely a "thought" piece? Generally, we omitted thought pieces.

Evaluation

Control group. Did the studies include control groups? Some studies reported only on an experimental group, that is, participants in an educational program–without including a comparison group of inmates who did not participate. We included a few such studies in our review because they are cited often in the literature, but generally we excluded them (see Babbie 1992 for a discussion of control groups).

Matching vs. random assignment of subjects. If control groups were used, did the researchers assign subjects randomly to control and experimental groups, did they match subjects, or did they simply compare participants in a program with nonparticipants? Statisticians consider random assignment best, matching second best, and simple comparisons of participants with nonparticipants least desirable (Hagan 1993; Kalton 1983), but our review of the literature shows that research constraints rarely allow for random assignment.

OR

Statistical controls. If the researchers did not assign subjects randomly to control and experimental groups, did they control statistically for background differences? As a rule, more faith can be placed in research that controls for some of the generally accepted correlates of successful postrelease adjustment: for example, prior convictions, age at first conviction, or opiate use (Pritchard 1979).

Tests of statistical significance. Are differences between experimental and control groups due to chance or are they statistically significant? Statisticians warn against the use of differences between samples unless it can be shown that they are not due to chance alone (Ott 1993).

Table 2. Summary of Findings of Studies of Precollege Education

Consequences	Author	Year	Relationship Found	Methodology Rating
Postrelease Recidivism	Anderson	1981	=	3
	Anderson, Anderson, and Schumacker	1988	+	2
	Cochran	1965	+	3
	Cogburn	1988	+	1
	Correctional Education School Authority	1990	+	2
	Johnson et al.	1974	=	3
	NYS, DOCS	1989, 1992	+	3
	Saden	1962	+	2
	Schnur	1948	+	2
	Schumacker, Anderson, and Anderson	1990	+	2
	Rogers	1980	=	/
	Roundtree, Edwards, and Dawson	1982	=	3
	Zink	1970	+	3
Postrelease Employment	Anderson	1981	=	3
	Anderson, Anderson, and Schumacker	1988	+	2
	Correctional Education School Authority	1990	+	2
	Schumacker, Anderson, and Anderson	1990	+	2
Postrelease Participation in Education	Anderson	1981	+	3
	State of Texas	1992	+	2

Explanation of Symbols:

+ Relationship between correctional program and consequence is in the desirable direction.
- Relationship between correctional program and consequence is in the undesirable direction.
= No relationship between correctional program and consequence.
0 Methodologically weakest studies: no control group, statistical controls, or significance tests.
1 Research includes one of the above.
2 Research includes two of the above.
3 Methodologically strongest studies: research included all three of the above.
/ Adequacy of research methodology cannot be ascertained.

Table 3. Summary of Findings of Studies of College Education

Consequences	Author	Year	Relationship Found	Methodology Rating
Postrelease Recidivism	Ayers et al.	1980	+	?
	Blackburn	1981	+	3
	Duguid	1981	+	?
	Hagerstown Junior College	1982	+	1
	Holloway and Moke	1986	+	2
	Knepper	1990	=	3
	Langenbach et al.	1990	+	3
	Linden et al.	1984	=	3
	Lockwood	1991	=	2
	NYS, DOCS	1991	+	2
	NYS, DOCS	1992	+	3
	O'Neil	1990	+	3
	Thorpe et al.	1984	+	2
	Wolf and Sylves	1981	=	0
Postrelease Employment	Duguid	1981	+	?
	Holloway and Moke	1986	+	2
	Wolf and Sylves	1981	+	0
Disciplinary Problems	Gendreau et al.	1985	=	2
	Langenbach et al.	1990	=	3
	Linden et al.	1984	+	3
Postrelease Participation in Education	Duguid	1981	+	?
	Wolf and Sylves	1981	+	0

Explanation of Symbols:

+ Relationship between correctional program and consequence is in the desirable direction.
- Relationship between correctional program and consequence is in the undesirable direction.
= No relationship between correctional program and consequence.
0 Methodologically weakest studies: no control group, statistical controls, or significance tests.
1 Research includes one of the above.
2 Research includes two of the above.
3 Methodologically strongest studies: research included all three of the above.
? Adequacy of research methodology cannot be ascertained.

Table 4. Summary of Findings of Studies on Vocational Education

Consequences	Author	Year	Relationship Found	Methodology Rating
Postrelease Recidivism	Alston	1981	+	1
	Anderson	1981	+	3
	Anderson, Anderson, and Schumacker	1988	+	2
	Anderson, Schumacker, and Anderson	1991	+	3
	Cochran	1965	+	3
	Cogburn	1988	+	1
	Correctional Education School Authority	1990	+	2
	Davis and Chown	1986	-	1
	Downes et al.	1989	=	3
	Gearhart et al.	1967	+	?
	Markley et al.	1983	=	3
	Saylor and Gaes	1992	+	3
	Schumacker, Anderson, and Anderson	1990	+	2
Postrelease Employment	Anderson	1981	+	3
	Anderson, Anderson, and Schumacker	1988	+	2
	Correctional Education School Authority	1990	+	2
	Downes et al.	1989	-	3
	Markley et al.	1983	=	3
	Saylor and Gaes	1992	+	3
	Schumacker, Anderson, and Anderson	1990	+	2
Disciplinary Problems	Alston	1981	+	1
	Saylor and Gaes	1992	+	3
	Linden et al.	1984	+	3

Explanation of Symbols:

+ Relationship between correctional program and consequence is in the desirable direction.
- Relationship between correctional program and consequence is in the undesirable direction.
= No relationship between correctional program and consequence.
0 Methodologically weakest studies: no control group, statistical controls, or significance tests.
1 Research includes one of the above.
2 Research includes two of the above.
3 Methodologically strongest studies: research included all three of the above.
? Adequacy of research methodology cannot be ascertained.

Table 5. Total Prisoner Population, New Admissions, and Turnover Ratio, 1980-1990

Year	Total Prisoner Population	New Admissions	Turnover Ratio
1980	28,543	14,176	.50
1981	30,315	15,702	.52
1982	34,393	18,837	.55
1983	36,769	22,870	.62
1984	35,772	23,058	.64
1985	37,320	25,365	.68
1986	38,246	30,471	.80
1987	39,652	35,007	.88
1988	39,664	33,816	.85
1989	41,626	33,303	.80
1990	49,157	46,290	.94

Table 6. Texas Prison Segregative Class Categories

Level	Group	Age
I	First Offender	17-21
IA	First Offender	22-25
IB	First Offender	Over 25
II	Recidivist	17-21
IIA	Recidivist	22-25
IIB	Recidivist	Over 25
IIC	Habituals	
III	Malcontents, High Security Risks	

Table 7. Time Served in Prison versus Time Needed to Advance One Grade Level

Segregative Class	Mean Number of Months Served in Prison	Mean Number of Months Needed to Advance 1 Grade Level	Mean Number of Months Needed to Achieve Vocational Certification
I	12.1	14.5	6.3
IA	11.8	10.3	6.1
IB	12.1	11.3	6.3
II	13.0	27.5	6.2
IIA	11.3	12.8	6.6
IIB	12.2	15.5	6.2
IIC	14.0	13.9	6.5
Overall Mean	12.3	13.0	6.3

Table 8. Waiting Time in Days and Months by Segregative Class

Segregative Class	Waiting Time in Days	Waiting Time in Months
I	179.9	5.9
IA	163.6	5.3
IB	204.2	6.7
II	145.9	4.8
IIA	181.2	5.9
IIB	152.9	5.0
IIC	166.3	5.4
Overall Mean	176.9	5.8

Table 9. Social, criminal, and educational characteristics of Windham and Non-Windham inmates

	None (n = 7793)	Academic (n = 5130)	Vocational (n = 208)	Both (n = 1280)
Conviction offense	Percent	Percent	Percent	Percent
Homicide/kidnap	3.7	1.6	4.3	2.3
Sex offense	2.0	2.1	0.0	2.5
Robbery/assault	9.5	10.0	13.3	14.8
Burglary/larceny	39.6	38.2	44.1	42.2
Forgery/fraud	6.8	5.0	5.3	3.0
Drugs	32.9	35.8	28.2	30.0
Traffic	6.1	5.3	4.1	3.2
Other	1.5	2.0	1.0	2.1
Violent offense				
Yes	25.5	27.4	24.4	32.8
No	74.5	72.6	75.6	67.2
Prior adult incarceration				
None	63.8	65.2	59.2	64.3
One or two	34.1	33.5	38.1	34.8
Three or more	2.1	1.4	1.5	0.8
Age (in years)				
16-21	37.1	22.3	28.8	27.4
22-27	25.1	27.1	24.5	28.2
28-35	32.3	31.1	29.8	28.2
36+	25.5	19.6	16.8	16.2
Mean	30.5	29.5	27.7	27.6
Std. Dev.	9.1	9.0	7.5	7.9
Gender				
Male	85.7	79.8	87.5	87.3
Female	14.3	20.2	12.5	12.7
Race				
Black	45.1	44.9	30.8	38.8
White	19.6	29.6	23.1	27.7
Hispanic	34.9	25.2	46.2	33.3
Other	0.3	0.3	0.0	0.2
Marital status				
Married	29.9	32.0	35.1	34.4
Single	70.1	68.0	64.9	65.6
IQ test score				
60 to 79	19.0	29.0	8.6	19.2
80 to 100	51.7	53.7	57.4	56.2
101 to 135	29.2	17.3	34.0	24.6
Mean	86.3	78.8	90.3	85.9
Std. Dev.	26.6	28.9	24.4	24.3
Educational achievement (grade level)				
Less than 6.0	31.8	38.8	17.1	41.8
6.0 to 7.4	15.4	16.3	16.5	17.9
7.5 and higher	52.8	24.9	66.5	40.3
Mean	4.6	4.6	6.4	5.8
Std. Dev.	4.5	3.1	3.3	3.6
Mandatory education status	44.1	59.8	29.3	41.8
Yes	55.9	40.2	70.7	58.2
No				

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Table 10. Prison and community outcomes by Windham eligibility and type of education program participation

	OUTCOME			
	Prison		Community	
	Minor disciplinaries	Major disciplinaries	Return to prison	Months to return
Windham participation	**Percent**	**Percent**	**Percent**	**Percent**
None (n = 8001)	24.1	5.7	23.7	15.7 - Mean 6.7 - S.D.
Windham eligible	22.5	5.8	25.1	15.5 - Mean 6.6 - S.D.
Windham eligible	23.8	5.7	19.1	16.7 - Mean 6.5 - S.D.
Academic (n = 5051)	34.1	8.4	23.0	16.5 - Mean 6.5 - Mean
Vocational (n = 422)	29.9	7.8	20.9	14.2 - Mean 6.1 - S.D.
Both (n = 1359)	44.7	12.4	21.6	15.6 - Mean 6.1 - S.D.

Table 11. Prison and community outcomes by mandatory participation in Windham programs and actual service delivery

Note: The "months to return" column applies only to those inmates who were reincarcerated.

	OUTCOME			
	Prison		Community	
	Minor disciplinaries	Major disciplinaries	Return to prison	Months to return
Windham participation	**Percent**	**Percent**	**Percent**	**Percent**
Not mandatory, no service (n = 4503)	24.8	5.7	22.3	16.4 - Mean 6.9 - S.D.
Not mandatory, service (n = 2807)	37.9	9.7	22.2	16.4 - Mean 6.5 - S.D.
Mandatory, no service (n = 3498)	22.2	6.0	25.3	15.3 - Mean 6.5 - S.D.
Mandatory, service (n = 3603)	33.3	8.7	23.1	16.6 - Mean 6.6 - S.D.

Table 12. Prison and community outcomes by number of hours in Windham programs

Note: The "months to return" column applies only to those inmates who were reincarcerated

	OUTCOME			
	Prison		Community	
	Minor disciplinaries	Major disciplinaries	Return to prison	Months to return
Participation in academic programs	**Percent**	**Percent**	**Percent**	**Percent**
None	22.8	5.7	23.6	15.7 - Mean 6.6 - S.D.
100 hours or fewer	31.2	7.3	25.0	16.5 - Mean 6.6 - S.D.
101 to 200 hours	39.8	8.5	20.7	16.0 - Mean 6.5 - S.D.
201 to 300 hours	42.7	12.5	21.8	16.7 - Mean 6.4 - S.D.
301 hours or more	48.5	18.2	16.6	15.2 - Mean 5.5 - S.D.
Participation in vocational programs				
None	27.1	6.7	22.4	16.1 - Mean 6.2 - S.D.
100 hours or fewer	35.8	9.8	22.8	15.2 - Mean 6.3 - S.D.
101 to 200 hours	45.2	12.4	22.6	15.8 - Mean 6.6 - S.D.
201 to 300 hours	47.6	10.7	18.2	15.0 - Mean 5.5 - S.D.
301 hours or more	48.8	14.8	18.3	14.9 - Mean 5.5 - S.D.

Table 13. Disciplinary involvement by monthly participation in Windham programs

Note: The data pertain only to inmates who participated in Windham programs and describe the inmates' month-by-month program and disciplinary involvements.

	DISCIPLINARY INVOLVEMENT	
Monthly participation in academic programs	**Minor**	**Major**
None	9.4	2.3
1 to 39 hours	15.3	3.4
40 or more hours	15.5	1.5
Monthly Participation in vocational program		
No	10.5	2.2
Yes	18.2	3.1

Table 14. Prison and community outcomes by initial grade level and hours of participation in academic programs

Initial grade level	OUTCOME: Prison — Minor disciplinaries	Prison — Major disciplinaries	Community — Return to prison	Community — Months to return
	Percent	Percent	Percent	Percent
1.0 to 3.9				
No participation	21.4	7.0	26.6	14.2 - Mean
200 hours or fewer	30.0	7.6	25.7	16.8 - Mean
Over 200 hours	41.0	11.5	18.1	17.0 - Mean
4.0 to 5.9				
No participation	29.2	7.7	27.9	15.9 - Mean
200 hours or fewer	33.5	8.5	22.8	16.5 - Mean
Over 200 hours	46.3	17.8	20.7	16.6 - Mean
6.0 to 8.9				
No participation	25.5	6.6	26.2	16.0 - Mean
200 hours or fewer	35.1	7.6	24.7	16.1 - Mean
Over 200 hours	52.5	19.3	20.5	15.5 - Mean
9.0 to 11.9				
No participation	23.0	5.7	21.4	17.5 - Mean
200 hours or fewer	38.9	7.3	19.8	17.7 - Mean
Over 200 hours	46.5	12.7	16.9	15.3 - Mean
12.0 and higher				
No participation	26.6	5.4	15.3	14.4 - Mean
200 hours or fewer	39.5	5.7	13.2	14.1 - Mean
Over 200 hours	40.6	9.4	12.5	14.0 - Mean

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